

Amendments to the Abstract:

Upon formation of an impurity-added silicon film by a low-pressure CVD apparatus, diffusion of an impurity from another similar silicon film₁ which has already been formed over the inside walls of the deposition chamber₁ is suppressed in the following manner. After insertion of a semiconductor substrate₁ having a gate oxide film (insulating film) formed thereover₁ into the deposition chamber of a CVD apparatus (first film forming apparatus), the inside of the deposition chamber is heated while minimizing, relative to a time A required for heating of the inside of the deposition chamber under atmospheric pressure, a time B required for the subsequent heating in the deposition chamber under a pressure adjusted to vacuum or not greater than atmospheric pressure. The formation of an impurity-added silicon film is then started. At this time, the relation between A and B is controlled to satisfy the following equation: $0.1 \times B \leq A \leq 13 \times B$.

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